AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-41. (Canceled)

42. (Currently Amended) A router in an Internet Protocol, IP, based UMTS Terrestrial Radio Access Network (UTRAN) Transport Network within a Universal Mobile Telecommunication System, the UTRAN transport network carrying Dedicated Channel (DCH) frames on DCHs between a RNC and at least one Node B, the router comprising:

means for splitting one input downlink DCH traffic flow originating from the RNC into at least two output downlink DCH traffic flows by using an IP multicast protocol,

wherein each output downlink DCH flow carries user data destined to a same end user equipment, and

wherein the router is separate from both the RNC and the Node Bs.

43. (Currently Amended) The router according to claim 42, wherein the router comprises means for replicating each DCH frame of the input downlink DCH traffic flow into a corresponding DCH frame of each output downlink DCH traffic flow and means for transmitting the replicated DCH frames of all output downlink DCH traffic flows according to the IP multicast protocol.

44. (Previously Presented) The router according to claim 42, wherein the IP multicast protocol is a Core Based Trees Multicast Routing version 2 (CBTv2) protocol.

45. (Previously Presented) The router according to claim 42, wherein the IP multicast protocol is a Protocol Independent Multicast-Sparse Mode (PIM-SM) protocol.

46. (Currently Amended) The router according to claim 42, wherein each output downlink DCH traffic flow is assigned a dedicated multicast destination address in the at least one Node B.

47. (Previously Presented) The router according to claim 46, wherein the means for splitting further comprises means for identifying a mapping between the RNC and the multicast destination address by using a CBTv2 or PIM-SM bootstrap mechanism.

48. (Previously Presented) The router according to claim 42, further comprising:

means for determining whether the router is a splitting and/or combination router by using protocol(s) CBTv2 and/or MLD,

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

49. (Previously Presented) The router according to claim 42, further comprising:

means for determining whether the router is a splitting and/or combination router by using protocol(s) PIM-SM and/or MLD,

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

50. (Previously Presented) The router according to claim 42, further comprising:

means for determining whether the router is a splitting and/or combination router by using protocol(s) PIM-SM and/or Internet Group Management Protocol (IGMP),

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

51. (Previously Presented) The router according to claim 42, further comprising:

means for determining whether the router is a splitting and/or combination router by using protocol(s) CBTv2 and/or Internet Group Management Protocol (IGMP),

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

52. (Currently Amended) The router according to claim 42, further comprising:

means for identifying DCH frames belonging to different uplink DCH traffic flows by means of utilization of a multicast address, assigned as ~~the~~ a downlink destination address, as a source address of the DCH frames sent in the uplink DCH traffic flows from all participating Node Bs.

53. (Previously Presented) The router according to claim 42, further comprising:

means for identifying DCH frames belonging to different uplink DCH traffic flows by retrieving a destination address and destination port(s) of uplink flows from the RNC.

54. (Previously Presented) The router according to claim 42, further comprising:

means for identifying DCH frames belonging to different uplink DCH traffic flows by using an uplink flow identity implicit in a downlink DCH traffic flow.

55. (Previously Presented) The router according to claim 42, further comprising:

means for identifying DCH frames belonging to different uplink DCH traffic flows by modifying MLD or IGMP protocol and a multicast routing protocol such that a destination port of an uplink is included in messages that are used to build a multicast tree.

56. (Currently Amended) The router according to claim 42, further comprising:

means for combining at least two input uplink DCH traffic flows into one single output uplink DCH traffic flow,

wherein each input uplink DCH flow carries user data from the same user equipment.

57. (Currently Amended) The router according to claim 56, wherein the means for combining further comprises:

means for building a new DCH frame from a received set of DCH frames in the at least two input uplink DCH traffic flows to be combined;

means for encapsulating the new DCH frame in a UDP packet; and

means for sending the UDP packet in an uplink direction.

58. (Currently Amended) The router according to claim 57, wherein the means for building the new DCH frame from the received set of DCH frames to be combined further comprises:

means for including a selected set of Transport Blocks (TBs) in a payload of the new DCH frame;

means for copying a header of the received set of DCH frames to the new DCH frame; and

selecting a Quality Estimate (QE) value for the new DCH frame and, if a payload CRC is used, calculating a payload CRC for the new DCH frame.

59. (Previously Presented) The router according to claim 42, further comprising:

means for estimating a Latest Accepted Time of Arrival (LAToA) for a next set of DCH frames to be combined having a Connection Frame Number n (CFN n) based on times of arrival of previous set of frames having a CFN n-1; and

means for adjusting the estimates of the LAToA for each new frame adapted to a maximum transport delay that a frame can experience under normal circumstances on its path from the at least one Node B to the router.

60. (Currently Amended) A method in an Internet Protocol, IP, based UMTS Terrestrial Radio Access Network (UTRAN) Transport Network within a Universal Mobile Telecommunication System, the UTRAN transport network carrying Dedicated Channel (DCH) frames on DCHs between a RNC and at least one Node B, the method comprising:

splitting, within a router, one input downlink DCH traffic flow originating from the RNC into at least two output downlink DCH traffic flows by using an IP multicast protocol,

wherein each output downlink DCH flow carries user data destined to a same end user equipment, and

wherein the router is separate from both the RNC and the Node Bs.

61. (Currently Amended) The method according to claim 60, further comprising:

replicating each DCH frame of the input downlink DCH traffic flow into a corresponding DCH frame of each output downlink DCH traffic flow; and

transmitting the replicated DCH frames of all output downlink DCH traffic flows according to the IP multicast protocol.

62. (Previously Presented) The method according to claim 60, wherein the IP multicast protocol is a Core Based Trees Multicast Routing version 2 (CBTv2) protocol.

63. (Previously Presented) The method according to claim 60, wherein the IP multicast protocol is a Protocol Independent Multicast-Sparse Mode (PIM-SM) protocol.

64. (Currently Amended) The method according to claim 60, wherein each output downlink DCH traffic flow is assigned a dedicated multicast destination address in the at least one Node B.

65. (Previously Presented) The method according to claim 60, further comprising:

identifying a mapping between the RNC and a multicast destination address by using a CBTv2 or PIM-SM bootstrap mechanism.

66. (Previously Presented) The method according to claim 60, further comprising:

determining whether the router is a splitting and/or combination router by using protocol(s) CBTv2 and/or MLD,

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

67. (Previously Presented) The method according to claim 60, further comprising:

determining whether the router is a splitting and/or combination router by using the protocol(s) PIM-SM and/or MLD,

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

68. (Previously Presented) The method according to claim 60, further comprising:

determining whether the router is a splitting and/or combination router by using the protocol(s) PIM-SM and/or Internet Group Management Protocol (IGMP),

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

69. (Previously Presented) The method according to claim 60, further comprising:

determining whether the router is a splitting and/or combination router by using the protocol(s) CBTv2 and/or Internet Group Management Protocol (IGMP),

wherein the protocol(s) are/is arranged to determine a number of listeners for a specific multicast destination address.

70. (Previously Presented) The method according to claim 60, further comprising:

identifying DCH frames belonging to different uplink DCH traffic flows by means of a utilization of a multicast address, assigned as a downlink destination address, as a source address of the DCH frames sent in the uplink DCH traffic flows from all participating Node Bs.

71. (Previously Presented) The method according to claim 70, further comprising:

identifying an originating Node B of an uplink DCH frame, based on a destination IP address and a destination UDP port assigned by the RNC to the Node B for the uplink of the DCH.

72. (Previously Presented) The method according to claim 60, further comprising:

identifying DCH frames belonging to different uplink DCH traffic flows by retrieving the destination address and the destination port(s) of the uplink DCH traffic flows from the RNC.

73. (Previously Presented) The method according to claim 60, further comprising:

identifying DCH frames belonging to different uplink DCH traffic flows by using an uplink flow identity implicit in the downlink flow.

74. (Previously Presented) The method according to claim 60, further comprising:

identifying DCH frames belonging to different uplink DCH traffic flows by modifying MLD or IGMP protocol and a multicast routing protocol such that the destination port of the uplink is included in messages that are used to build a multicast tree.

75. (Previously Presented) The method according to claim 70, further comprising:

identifying an originating Node B of an uplink DCH frame, based on a source UDP port assigned by the RNC to the Node B for the uplink of the DCH.

76. (Previously Presented) The method according to claim 72, further comprising:

identifying an originating Node B of an uplink DCH frame, based on a source IF address.

77. (Currently Amended) The method according to claim 60, further comprising:

combining at least two input uplink DCH traffic flows into one output uplink DCH traffic flow,

wherein each input uplink DCH flow carries user data from the same user equipment.

78. (Currently Amended) The method according to claim 77, further comprising:

building a new DCH frame from a received set of DCH frames in the at least two input uplink DCH traffic flows to be combined;

encapsulating the new DCH frame in a UDP packet; and

sending the UDP packet in an uplink direction.

79. (Currently Amended) The method according to claim 78, wherein the building step further comprises:

including a selected set of Transport Blocks, TBs, in the payload of the new DCH frame;

copying the header of the received set of DCH frames to the new DCH frame; and

selecting a Quality Estimate, QE, value for the new DCH frame and, if a payload CRC is used, calculating a payload CRC for the new DCH frame.

80. (Previously Presented) The method according to claim 60, further comprising:

estimating a Latest Accepted Time of Arrival (LAToA) for a next set of DCH frames to be combined having a Connection Frame Number n (CFN n) based on the times of arrival of the previous set of frames having a CFNn-1, and

adjusting the estimates of the LAToA for each new frame adapted to the maximum transport delay that a frame can experience under normal circumstances on its path from the Node B to the combining router.

81. (Previously Presented) A computer program product directly loadable into the internal memory of a computer within a node in a Universal Mobile Telecommunication System, comprising software code portions for performing the method of claim 60.

82. (Previously Presented) A computer program product stored on a computer usable medium, comprising a readable program for causing a computer, within a node in a Universal Mobile Telecommunication System to control an execution of the method of claim 60.

83. (Previously Presented) The router according to claim 42, wherein the router is in a communication traffic path between the RNC and the at least one Node B.

84. (Previously Presented) The method according to claim 60, wherein the router is in a communication traffic path between the RNC and the at least one Node B.